

Fos B (C-6): sc-515210

BACKGROUND

The v-Fos oncogene was initially identified as the transforming gene of two independent murine osteosarcoma virus isolates and an avian nephroblastoma virus. The cellular homolog, c-Fos, encodes a nuclear phosphoprotein that is rapidly and transiently induced by a variety of agents and functions as a transcriptional regulator for several genes. In contrast to c-Jun proteins, which form homo- and heterodimers which bind to specific DNA TPA response elements (TREs), c-Fos proteins are only active as heterodimers with members of the Jun gene family. Murine Fos B encodes a nuclear protein of 338 amino acids which has 70% homology with c-Fos, exhibits similar kinetics of expression as c-Fos and forms heterodimers with both c-Jun and Jun B, which bind to TRE DNA response elements. Functional homologs of c-Fos and Fos B include Fra-1 and Fra-2 genes.

REFERENCES

1. Finkel, M.P., et al. 1966. Virus induction of osteosarcomas in mice. *Science* 151: 698-701.
2. Curran, T. and Verma, I.M. 1984. FBR murine osteosarcoma virus. I. Molecular analysis and characterization of a 75 kDa Gag-Fos fusion product. *Virology* 135: 218-228.
3. Sambucetti, L.C. and Curran, T. 1986. The Fos protein complex is associated with DNA in isolated nuclei and binds to DNA cellulose. *Science* 234: 1417-1419.
4. Nishizawa, M., et al. 1987. An avian transforming retrovirus isolated from a nephroblastoma that carries the Fos gene as the oncogene. *J. Virol.* 61: 3733-3740.
5. Renz, M., et al. 1987. Chromatin association and DNA binding properties of the c-Fos proto-oncogene product. *Nucleic Acids Res.* 15: 277-292.
6. Zerial, M., et al. 1989. The product of a novel growth factor activated gene, Fos B, interacts with Jun proteins enhancing their DNA binding activity. *EMBO J.* 8: 805-813.

CHROMOSOMAL LOCATION

Genetic locus: FOSB (human) mapping to 19q13.32; Fosb (mouse) mapping to 7 A3.

SOURCE

Fos B (C-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 257-283 near the C-terminus of Fos B of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515210 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-515210 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Fos B (C-6) is recommended for detection of Fos B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Fos B siRNA (h): sc-35403, Fos B siRNA (m): sc-35404, Fos B shRNA Plasmid (h): sc-35403-SH, Fos B shRNA Plasmid (m): sc-35404-SH, Fos B shRNA (h) Lentiviral Particles: sc-35403-V and Fos B shRNA (m) Lentiviral Particles: sc-35404-V.

Fos B (C-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Fos B: 45 kDa.

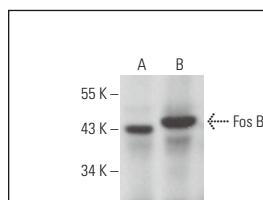
Positive Controls: human cerebellum extract: sc-516706, human cerebral cortex tissue extract or mouse brain extract: sc-2253.

RECOMMENDED SUPPORT REAGENTS

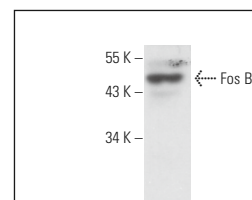
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Fos B (C-6): sc-515210. Western blot analysis of Fos B expression in human cerebral cortex (A) and human cerebellum (B) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Fos B (C-6): sc-515210. Western blot analysis of Fos B expression in mouse brain tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.